

AMENDMENTS TO THE CLAIMS

The following listing of claims will replace all prior versions and listings of claims in the application.

LISTING OF CLAIMS

1. – 8. (Cancelled)
9. (New) An apparatus for converting linear motion into rotary motion or vice versa comprising a shaft which is rotatable about a fixed axis and carrying a circular cam mounted eccentrically relative to that axis, the cam being rotatably mounted within a journal, an axis of rotation of the cam relative to the journal being spaced from a centre of the journal, the journal being in turn rotatably mounted within a housing mounted for reciprocating motion along a second axis in a direction transverse to the axis of the shaft whereby reciprocating motion of the housing along the second axis is converted into rotation of the shaft, or rotation of the shaft is converted into reciprocating motion of the housing along the second axis.
10. (New) An apparatus as claimed in claim 9 wherein the fixed axis of the shaft is spaced from the second axis.
11. (New) An apparatus as claimed in claim 9 wherein the fixed axis of the shaft is inline with the second axis.
12. (New) An apparatus as claimed in claim 9, wherein the journal is arranged so that rotation of the journal relative to its centre oscillates between clockwise

and counter-clockwise rotation, in response to unidirectional rotation of the shaft relative to the axis of the shaft.

13. (New) An apparatus as claimed in claim 9 wherein the journal is in the form of a disc.
14. (New) An apparatus as claimed in claim 9 wherein in rotation of the shaft there exists a configuration in which the fixed axis, the axis of rotation of the cam relative to the journal, and the centre of the journal are aligned in a line perpendicular to the second axis.
15. (New) An apparatus as claimed in claim 9, wherein the housing is rigidly fixed to a piston of an internal combustion engine.
16. (New) An apparatus as claimed in claim 10, wherein the housing is rigidly fixed to a piston of an internal combustion engine.
17. (New) An apparatus as claimed in claim 16, wherein the spacing of the fixed axis of the shaft from the second axis is such that the duration of a power stroke of the piston is shortened relative to a compression stroke of the piston.
18. (New) An apparatus as claimed in claim 17, wherein the shortening of the duration of the power stroke results in an increase in the mean velocity of the piston over the power stroke.

19. (New) A nautical steering system comprising an apparatus for converting linear motion into rotary motion or vice versa, the apparatus comprising a shaft which is rotatable about a fixed axis and carrying a circular cam mounted eccentrically relative to that axis, the cam being rotatably mounted within a journal, an axis of rotation of the cam relative to the journal being spaced from a centre of the journal, the journal being, in turn, rotatably mounted within a housing mounted for reciprocating motion along a second axis in a direction transverse to the axis of the shaft whereby reciprocating motion of the housing along the second axis is converted into rotation of the shaft, or rotation of the shaft is converted into reciprocating motion of the housing along the second axis.